

WHAT IS CLAIMED IS:

1. A double path microdrop optical biometric system comprising:

a micro container, having a predetermined depth and a circular recess with a predetermined diameter for receiving a specimen, said micro container having a first end and a second end;

a corner cube array disposed near the first end of said micro container, said corner cube array having a plurality of micro corner cubes so as to reflect an incoming beam back along its original path of said incoming beam;

a collimator disposed at a position outside said second end of said micro container;

a beam splitting device having a spectrometer, an input fiber, an output fiber and a two-way fiber;

a light source selector for providing a first beam having a predetermined wavelength range and intensity, said light source selector including an electrical switch, a LED array having a plurality of different colored LEDs, a plurality of middle fibers, and a light coupler to guide a selected colored light into the input fiber so that the first light beam having a desired wavelength;

a detector for detecting a final intensity of a received beam; and

a signal comparator unit for comparing said detected final intensity of said specimen with a reference intensity so that an absorptance of said specimen can be calculated;

wherein said input fiber guides the first beam passing through said cube beamsplitter of said beam splitting device and then through said two-way fiber to arrive to said collimator so as to expand as a second beam having another diameter approximately equal to said predetermined diameter, then said second beam

continues to penetrate said micro container and becomes a third beam, after reflected by said corner cube array and passing through said micro container again, a fourth beam is obtained; after passing through said collimator, said fourth beam becomes a collected fifth beam; said fifth beam enters said two-way fiber to arrive
5 to said cube beamsplitter of said beam splitting device and then to be reflected aside into said output fiber and finally to said detector so that said signal comparator unit can calculate an absorptance of said specimen.

2. The double path microdrop optical biometric system as claimed in claim 1,
10 wherein said micro container is an elongated transparent plastic plate and said circular recess has a diameter between 4 to 6 mm and a depth between 0.1 to 0.5 mm.